

SEQUENCE LISTING

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COPY

<120> Method of Generating Diversity

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<160> 87

<170> PatentIn version 3.1

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30

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35

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30

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cccctctaga ccacctagga cggtcagctt

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ggactgcagt caggttcagt ggcagtggg

29

<210> 8

<211> 31

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<222> (1)..(31)

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caggagctcg cggggccgtc actgattgcc g

31

<210> 9

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<400> 9

gcgcaagctt ccccagcctg ccgccaagtc caag

34

<210> 10

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<222> (1)..(26)

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<400> 10

ggaattctca gtgggagcag gagcag

26

<210> 11

<211> 27

<212> DNA

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<222> (1)..(27)

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<400> 11

cgggagctcc gtcagcgctc tctgtcc

27

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<211> 29

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<222> (1)..(29)

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<400> 12

ggggtacccg gaggagacga tgacttcgg

29

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gcagttcaag aattcctcgc tgg

23

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<222> (1)..(24)

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<400> 14

ggagccatcg atcacccaat ccac

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<211> 341

<212> DNA

<213> Homo sapiens

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<222> (1)..(341)

<223>

<400> 15

tggggcgag gactgttgaa gccttcggag accctgtccc tcacctgcgg tgtttatggt

60

gggtccttca gtggttacta ctggagctgg atccgccagc cccagggaa ggggctggag 120

tggattgggg aaatcaatca tagtggaagc accaactaca acccgccct caagagtcga 180

gtcaccatat cagtagacac gtccaagaag cagctctccc tgaagttgag ctctgtgaac 240

gccgcggaca cggctgtgta ttactgtgog agagttatta ctagggcgag tcctggaaca 300

gacgggaggt acggtatgga cgtctggggc caagggacca c 341

<210> 16

<211> 12

<212> DNA

<213> Homo sapiens

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<222> (7)..(7)

<223> A62

Sequence 'tcag tgg' is deleted

<400> 16

ggtcctttac ta

12

<210> 17
<211> 12
<212> DNA
<213> Homo sapiens

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<223> A 120
Nucleotide 'T' at position 7 is deleted

<400> 17
gtggatgggg aa

12

<210> 18
<211> 12
<212> DNA
<213> Homo sapiens

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<222> (7)..(7)
<223> A276
Nucleotides TGTGNNNNNNNNNNNNNNNNNTACT are deleted
N = nucleotides A, T, G or C

<400> 18

tattacaggg cg

12

<210> 19

<211> 12

<212> DNA

<213> Homo sapiens

<220>

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<222> (7)..(7)

<223> A306

Nucleotide 'C' at position 7 is deleted

<400> 19

gaggtaggta tg

12

<210> 20

<211> 11

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> B93

Nucleotide G at position 7 is deleted

<400> 20

ccgccacccc a

11

<210> 21

<211> 11

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> B98

Nucleotide 'C' at position 7 is deleted

<400> 21

agcccaggga a

11

<210> 22

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> B227

The sequence 'CTGTG' is deleted

<400> 22

tgagctaacg cc

12

<210> 23

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> C82

The sequence TGGA.37bp.GAGT is deleted

<400> 23

tggagtggat tg

12

<210> 24

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> C209

The sequence 'tctt ccctgaagtt' is deleted

<400> 24

agcaccgagc tc

12

<210> 25

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> C187

The sequence 'GTACACACGTCCAAGA' is deleted

<400> 25

atatcaagca cc

12

<210> 26

<211> 11

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> U26

Nucleotides 'CC' are deleted

<400> 26

cggagactgc c

11

<210> 27

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> U199

Nucleotides 'AAG' are deleted

<400> 27

acgtccaagc ac

12

<210> 28

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> U208

Nucleotide 'C' at position 7 is deleted.

<400> 28

aagcagtttc tc

12

<210> 29

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> U268

The sequence 'GTTATTA' is deleted

<400> 29

gcgagactag gg

12

<210> 30

<211> 34

<212> DNA

<213> Homo sapiens

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<222> (17)..(29)

<223> A255

The sequence 'CGAGAGTTATTA' is inserted between positions 17 and 29 and is a duplication of nucleotides between positions 5 and 16.

<400> 30

<400> 31

ggctggagtg gattgggnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60

nnnnnnnnnn nnnnnnnnnt atcagtggat tgggnnnnnn nnnnnnnnnn nnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnntatc agtaga 166

<210> 32

<211> 30

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (16)..(25)

<223> U43

The sequence 'GGTGTTTAT' is inserted and duplicates sequences between positions 7 and 16.

<400> 32

acctgcggtg tttatggtgt ttatggtggg 30

<210> 33

<211> 34

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (16)..(29)

<223> U318

The sequence 'ACGTCTGGGGCCA' is inserted and duplicates sequence
s between positions 3 and 15

<400> 33

ggacgtctgg ggccaacgtc tggggccaag ggac

34

<210> 34

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> D27

The sequence 'CCTCA' is deleted

<400> 34

ggagaccctg cg

12

<210> 35

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> D31

Nucleotide 'A' is deleted at positions 7

<400> 35

accctccctg cg

12

<210> 36

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> D219

Nucleotide 'G' is deleted at position 7.

<400> 36

cctgaattga gc

12

<210> 37

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> D150

Nucleotide 'C' is deleted at position 7

<400> 37

caccaataca ac

12

<210> 38

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> D109

Nucleotide 'C' at position 7 is deleted

<400> 38

aaggggtgga gt

12

<210> 39

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> E28

The sequence 'CCTGC' is deleted.

<400> 39

ccctcaggtg tt

12

<210> 40

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> E81

The sequence "ttgg annnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnntg ga
g' is deleted

<400> 40

ctggagtgga tt

12

<210> 41

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> E88

The sequence 'cgcc' is deleted

<400> 41

tgatcagcc cc

12

<210> 42

<211> 11

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (6)..(6)

<223> E92

Nucleotide 'g' at position 6 is deleted

<400> 42

cgccaccccc a

11

<210> 43

<211> 12

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> E136

The sequence 'AGTGGAAGCACCAACTA' is deleted

<400> 43

aatcatcaac cc

12

<210> 44

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> F66

The sequence 'TGGTTACTACT' is deleted

<400> 44

cttcacggag tt

12

<210> 45

<211> 12

<212> DNA

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<222> (7)..(13)

<223> F183

Nucleotides 'ATCAGTA' are deleted between positions 7 and 13

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<221> misc_feature

<222> (7)..(13)

<223> F183

The sequence 'ATCAGTA' is deleted

<400> 45

tatcatacac gt

12

<210> 46

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> F215

The sequence TGAA.18bp.CGCC is deleted

<400> 46

tctcccgcgg ac

12

<210> 47

<211> 12

<212> DNA

<213> Homo sapiens

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<222> (7)..(7)

<223> F267

Nucleotides 'AG' between are deleted.

<400> 47

tgcgagttat ta

12

<210> 48

<211> 102

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (54)..(99)

<223> D55

The sequence 'gtggnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnna
ggg' is inserted between positions 54 and 99 and duplicates seque
nces between positions 5 and 53

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<222> (9)..(50)

<223> N = nucleotides A, T, G or C

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<221> misc_feature

<222> (58)..(95)

<223> N = nucleotides A, T, G or C

<400> 48

tatggtggnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnna ggggtggnnn 60

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnaggga gg 102

<210> 49

<211> 55

<212> DNA

<213> Homo sapiens

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<222> (29)..(50)

<223> D123

The sequence 'GGAAATCAATCATAGGGAAGC' is inserted between position
s 29 and 50 and duplicates sequences between 7 and 28

<400> 49

gattggggaa atcaatcata gtggaagcgg aaatcaatca tagggaagca ccaac 55

<210> 50

<211> 44

<212> DNA

<213> Homo sapiens

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<222> (23)..(41)

<223> F85

The sequence' ggatnnnnnnnnnnccca' is inserted between positions 2
3 and 41 and duplicates the sequence between positions 4 and 22

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<222> (9)..(19)

<223> N = nucleotides A, T, G or C

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<221> misc_feature

<222> (27)..(37)

<223> N = nucleotides A, T, G or C

<400> 50

agttggatnn nnnnnnnncc caggatnnnn nnnnnnccca ggga

44

<210> 51

<211> 17

<212> DNA

<213> Homo sapiens

<220>

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<223> D3

The sequence GACCC between positions 7 and 12 replace the sequenc
e AGGACTGT

<400> 51

ggtcgcgacc ctgaagc

17

<210> 52

<211> 130

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (64)..(124)

<223> D56

The sequence 'ggtggggn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnn
n nnnnnnnncaggg' is inserted between positions 64 and 124 and is
a duplicate of the sequence between positions 2 and 63

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<222> (9)..(59)

<223> N = nucleotides A, T, G or C

<220>

<221> misc_feature

$\langle 222 \rangle \quad (70) \dots (120)$

<400> 52

gggggtgggn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120

<210> 53

<212> DNA

<220>

<222> (7) .. (10)

The nucleotides 'GGG' between positions 7 and 10 replace the nucleotide 'A'

gtggttgggc tactg

<210> 54

<211> 15

<212> DNA

<213> Homo sapiens

<220>

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<222> (7)..(9)

<223> D75

The nucleotides 'GG' between positions 7 and 9 replace the nucleotide 'C'

<400> 54

ttactaggtg gagtt

15

<210> 55

<211> 14

<212> DNA

<213> Homo sapiens

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<222> (6)..(9)

<223> D126

The sequence 'GGG' between positions 6 and 9 replaces the sequenc

e 'AATCAATCAT'

<400> 55

tgggagggag tgga ,

14

<210> 56

<211> 21

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(15)

<223> D223

The sequence 'GACCCGGC' between positions 7 and 15 replaces the sequences 'AG'

<400> 56

aagttggacc cggcctctgt g

21

<210> 57

<211> 42

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (15)..(37)

<223> D232

The sequence 'GCCCCGTCCTGTGAACGCCGC' is inserted between positions 15 and 37

<400> 57

tctgtgaacg ccgcgcccc gtcctgtgaa cgccgcggac ac

42

<210> 58

<211> 17

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(12)

<223> D235

The sequence 'GGAGG' is inserted between positions 7 and 12

<400> 58

gtaaacggag ggccgcg

17

<210> 59

<211> 15

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

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<223> D252

The sequence 'TCC' between positions 7 and 9 replace the sequence
'GTATTACTGT'

<400> 59

ggctgttccg cgaga

15

<210> 60

<211> 16

<212> DNA

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<221> misc_feature

<222> (7)..(9)

<223> D268

The nucleotides 'AGG' between positions 7 and 9 replace the nucle

otides 'GT'

<400> 60

gcgagaaggt attatt

16

<210> 61

<211> 14

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(8)

<223> D332

The nculeotides 'GG' between psositions 7 and 8 replace nucleotide

' C'

<400> 61

ttattaggta gggc

14

<210> 62

<211> 11

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(9)

<223> D332

The nucleotides AG' between positions 7 and 9 replace nucleotide
'C'

<400> 62

aagggaagca c

11

<210> 63

<211> 14

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (6)..(8)

<223> E51

The nucleotides 'GT' replaces the sequence 'AGGA.51bp.CTTC'

<400> 63

gggcgcgtag tggt

14

<210> 64

<211> 18

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(12)

<223> E51

The sequence AGACC replaces the sequence TGGT.15bp.TACT

<400> 64

tgtttaagac cactggag

18

<210> 65

<211> 15

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(9)

<223> E80

The sequence CCC replaces the nucleotide G

<400> 65

actggaccct tggat

15

<210> 66

<211> 16

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(11)

<223> E263

The sequence GGTG replaces the sequence CGAGAGTTATTACT

<400> 66

actgtgggtg agggcg

16

<210> 67

<211> 15

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(9)

<223> F89

The sequence AGG replaces the sequence GCCAGCCCCAGGG

<400> 67

ggatccagga agggg

15

<210> 68

<211> 15

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(9)

<223> F168

The sequence GGG replaces the sequence AGAGTCGAGT

<400> 68

cctcaagggc accat

15

<210> 69

<211> 17

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(12)

<223> F195

The sequence AGGGC replaces the sequence GTCCAAGAAG

<400> 69

agacacaggg ccacctc

17

<210> 70

<211> 15

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(9)

<223> F199

The sequence CT replaces the sequence AAGAAG

<400> 70

acgtccctac cctga

15

<210> 71

<211> 15

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(9)

<223> F242

The sequence GGA replaces the sequence ACACGGCTGTGTATTACTGT

<400> 71

ccgcgaggag cgaga

15

<210> 72

<211> 17

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(12)

<223> F260

the sequence CGTGA replaces the sequence GTG

<400> 72

attactcgtg acgagag

17

<210> 73

<211> 15

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(10)

<223> F264

The sequence ACA replaces the sequence GAGAG.46bp.CGTC

<400> 73

ctgtgcacat ggggc

15

<210> 74

<211> 12

<212> DNA

<213> Homo sapiens

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The nucleotide A replaces the nucleotide G

<400> 74

gattggaaaa tc

12

<210> 75

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> C109

The nucleotide T replaces nucleotide C

<400> 75

aagggttgga gt

12

<210> 76

<211> 36

<212> DNA

<213> Homo sapiens

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<222> (17)..(31)

<223> Insertion of the sequence GAAGCCTTCGGAGA that duplicates the sequence between position 3 and 16

<400> 76

ttgaagcctt cggactgaag ccttcggaga ccctgt

36

<210> 77

<211> 30

<212> DNA

<213> Homo sapiens

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<222> (15)..(25)

<223> U180

Insertion of sequence ACCATATCAG that duplicates the sequence between positions 5 and 14

<400> 77

agtcaccata tcaaaccata tcagtagaca

30

<210> 78

<211> 13

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (7)..(7)

<223> D45

The sequence GTTTATGGTGGGT is deleted

<400> 78

ctgcgcgcct tca

13

<210> 79

<211> 13

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (8)..(8)

<223> D164

The sequence CAAG is deleted

<400> 79

cgtccccagt cga

13

<210> 80

<211> 13

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (8)..(8)

<223> D216

The sequence AAG.22bp.CGGA is deleted

<400> 80

ctcccttcac ggc

13

<210> 81

<211> 12

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<222> (7)..(7)

<223> E11

The nucleotide 'T' is deleted

<400> 81

gactgtaaag cc

12

<210> 82

<211> 13

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (8)..(8)

<223> E54

The sequence GGG.25bp.GTTG is deleted

<400> 82

ttatggagat ccg

13

<210> 83

<211> 13

<212> DNA

<213> Homo sapiens

<220>

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<222> (8)..(8)

<223> F188

The sequence AGACACGTCCAGAA is deleted

<400> 83

tatcagggca cct

13

<210> 84

<211> 13

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (8)..(8)

<223> F220

The sequence TGAGCTCTGTG is deleted

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ctgaagcaac gcc

13

<210> 85

<211> 300

<212> DNA

<213> Homo sapiens

<400> 85

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aaactcatga tttatgatgt cagtaatcgg cctcagggg tttctaatac cttctctggc 180

tccaagtctg gcaacacggc ctccctgacc atctctgggc tccaggctga cgacgaggct 240

gattattact gcacctcata taaaacgac agcaattctc aggtattcgg cggaggggacc 300

<210> 86

<211> 427

<212> DNA

<213> Homo sapiens

<400> 86

ggggccgtca ctgattgccg ttttctcccc tctctcctct cctctccag gttccctggt 60

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cacctgctcc gggggtggca gctatgctgg aagttactat tatggctggg accagcagaa	180
ggcacctggc agtgcccctg tcactgtgat ctatgacaac accaacagac cctcgaacat	240
cccttcacga ttctccggtt ccctatccgg ctccacaaac acattaacca tcactggggg	300
ccgagccgat gacgaggctg tctatttctg tgggaatgca gacaacactg gtgctgcatt	360
tggggccggg acaaccctga ccgtcctagg tgagtcgctg acctcgtctc ggtctttctt	420
cccccat	427

<210> 87

<211> 372

<212> DNA

<213> Homo sapiens

<400> 87

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gggaaggggc tggagtgggt gtcacttatt tatagcgggt gtagcacaac atattacgca	180
gagtcctga agggccgatt caccatctcc agagacaatt caaaaaacac gatgtatctt	240

caaatgaaca gcctgagagt agaggacacg gctgtgtatt actgtgcggg agacctgaac 300

agcacctcgg tagggactaa taatttctac atggacgtct ggggcaaagg gaccacggtc 360

accgtctcct ca 372